

PRODUCTION OF CRYSTALLIZED ZIRCONIA SOL

Publication number: JP1076919

Publication date: 1989-03-23

Inventor: YOSHIKAWA MASATO; MOTO AKINORI; INOUE
TAKEHISA

Applicant: TORAY INDUSTRIES

Classification:

- International: C01G25/02; C01G25/00; (IPC1-7): C01G25/02

- European:

Application number: JP19870233340 19870917

Priority number(s): JP19870233340 19870917

Report a data error here

Abstract of JP1076919

PURPOSE: To obtain the titled stable sol having fine particle size and free from secondary coagulation tendency, with simple process, by heating an aqueous suspension containing zirconium hydroxide, keeping the hot state in an acidic atmosphere having a specific pH range, evaporating and drying the obtained aqueous suspension containing crystallized ZrO_2 and adding the dried product to an aqueous solvent. **CONSTITUTION:** An aqueous solution of a Zr salt (e.g., $ZrCl_4$) and, as necessary, salt of other element (e.g., YCl_3) is neutralized and coprecipitated with a base to obtain an aqueous suspension containing zirconium hydroxide and, as necessary, hydroxide of other element such as Y. The aqueous dispersion is adjusted to a concentration of $\leq 1 \text{ mol./l}$ optionally after washing, heated at $\geq 80 \text{ deg. C}$, adjusted to an acidic state of pH 1-5.5 e.g. by the addition of an acid and maintained in hot state of e.g. 150 deg. C for about 12hr until crystallized substance is sufficiently produced. The obtained aqueous dispersion containing crystallized ZrO_2 is evacuated to dryness at $\leq 200 \text{ deg. C}$ preferably under reduced pressure at $\leq 100 \text{ deg. C}$ and the obtained solid lump is added to an aqueous solvent under normal temperature and pressure condition to obtain the objective sol.

Data supplied from the esp@cenet database - Worldwide

5, (6), 7, 8, 12, 14, 15, 18, 19, 24, 26, 28, 29,

30

PATENT ABSTRACTS OF JAPAN

(11)Publication number : **64-076919**

(43)Date of publication of application : **23.03.1989**

(51)Int.Cl.

C01G 25/02

(21)Application number : **62-233340**

(71)Applicant : **TORAY IND INC**

(22)Date of filing : **17.09.1987**

(72)Inventor : **YOSHIKAWA MASATO
MOTO AKINORI
INOUE TAKEHISA**

(54) PRODUCTION OF CRYSTALLIZED ZIRCONIA SOL

(57)Abstract:

PURPOSE: To obtain the titled stable sol having fine particle size and free from secondary coagulation tendency, with simple process, by heating an aqueous suspension containing zirconium hydroxide, keeping the hot state in an acidic atmosphere having a specific pH range, evaporating and drying the obtained aqueous suspension containing crystallized ZrO₂ and adding the dried product to an aqueous solvent.

CONSTITUTION: An aqueous solution of a Zr salt (e.g., ZrCl₄) and, as necessary, salt of other element (e.g., YCl₃) is neutralized and coprecipitated with a base to obtain an aqueous suspension containing zirconium hydroxide and, as necessary, hydroxide of other element such as Y. The aqueous dispersion is adjusted to a concentration of ≤ 1 mol./l optionally after washing, heated at $\geq 80^{\circ}\text{C}$, adjusted to an acidic state of pH1W5.5 e.g. by the addition of an acid and maintained in hot state of e.g. 150°C for about 12hr until crystallized substance is sufficiently produced. The obtained aqueous dispersion containing crystallized ZrO₂ is evacuated to dryness at $\leq 200^{\circ}\text{C}$ preferably under reduced pressure at $\leq 100^{\circ}\text{C}$ and the obtained solid lump is added to an aqueous solvent under normal temperature and pressure condition to obtain the objective sol.

LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than
the examiner's decision of rejection or
application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's
decision of rejection]

[Date of requesting appeal against examiner's
decision of rejection]

[Date of extinction of right]